

Title (en)

Method and apparatus for conveying objects, particularly plates, and process of and system for checking plates in an eating establishment

Title (de)

Verfahren und Vorrichtung zum Transport von Gegenständen, besonders Teller, und Verfahren und System zum Prüfen von Tellern

Title (fr)

Procédé et dispositif de transport des articles, surtout des assiettes, et procédé et système de contrôle des assiettes

Publication

**EP 1084971 A3 20010711 (EN)**

Application

**EP 00307846 A 20000911**

Priority

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- JP 2000058380 A 20000303

Abstract (en)

[origin: EP1084971A2] A method of and apparatus for conveying a conveyable object is disclosed whereby the object (W) attracted at a conveying start site (A) by suction to an attractor means (12) carried by a conveyer arm (14) and conveyed by the conveyer arm (14) while being retained by suction to the attractor means (12) is instantaneously detached from the attractor means (12) at an object conveying destination site (B). To attract the object (W) and to hold it retained to the attractor means (12), an attractor plate (32) having fastened thereto the attractor means (12) and attached to a lower end of an inner cylinder (28) that extends in the outer cylinder (20) is held in a vacuum contact with a head plate (24) attached to a lower end of an outer cylinder (20) carried by a conveyer arm (14) in which a vacuum communication is established of the attractor means (12) with a suction source (16) via the attractor plate (32), the head plate (24) and suction hose means (22). At the conveying destination site (B), the attractor plate (32) carried by the descending inner cylinder (28) with a release roller (36) guided by a release cam guide (46) is detached from the head plate (24) carried by the outer cylinder (20) held stationary to instantaneously break the vacuum communication and release the conveyed object (W) from suction retention to the attractor means (12). In the checking system, data are stored in a computer (68) for the colors (62) of merchandise item plates (60) for their respective kinds and/or prices. The plates (60) consumed by a guest for checking are placed one on top of another in the plate (object) conveying start side (A). The sensor (64) to read a color of the consumed merchandise item plate (60). The computer (68) collates data for the colors, read by the sensor (64) and collate the stored data with the pre-stored data for the colors of merchandise item plates for their respective kinds and/or prices to determine the number and the charge of the consumed plates (60) for each of the kinds and/or prices, and to compute a total charge therefrom. <IMAGE>

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CPC (source: EP US)

**A47F 10/06** (2013.01 - EP US); **B65G 47/91** (2013.01 - EP US)

Citation (search report)

- [A] FR 2673612 A1 19920911 - SACERI [FR]
- [A] US 4793762 A 19881227 - MUENCH KARL [DE], et al
- [A] US 5543607 A 19960806 - WATANABE KIYOSHI [JP], et al

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**EP 1084971 A2 20010321**; **EP 1084971 A3 20010711**; US 2001043857 A1 20011122; US 6389328 B1 20020514; US 6416274 B2 20020709

DOCDB simple family (application)

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